

**AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**LISTING OF CLAIMS:**

1. (Currently Amended) A process for the detection of hydrocarbons other than methane in a gas ~~predominantly comprising at least 95%~~ oxygen, methane and said hydrocarbons other than methane, the process comprising:

- a stage of detection of the combined hydrocarbons in said gas, providing a first value for the combined hydrocarbons,
- a stage of combustion of the hydrocarbons other than methane,
- a stage of detection of methane in said gas, providing a second value,
- a stage of calculation of the amount of hydrocarbons other than methane by the difference between the first value and the second value.

2. (Canceled)

3. (Currently Amended) The process according to Claim 1, wherein said ~~gas predominantly comprising oxygen, methane and hydrocarbons other than methane, said~~ hydrocarbons other than methane are present, with respect to the methane, in a proportion on the order of a few percent.

4. (Previously Presented) The process according to Claim 3, wherein said hydrocarbons other than methane are present, with respect to the methane, in a proportion of less than 6%.

5. (Previously Presented) The process according to Claim 3, wherein said gas comprises less than 50 ppm of methane.

6. (Previously Presented) The process according to Claim 3, wherein said hydrocarbons other than methane are present at a concentration of less than 5 ppm in the oxygen.

7. (Previously Presented) The process according to Claim 1, wherein hydrocarbons other than methane are incinerated using a catalyst.

8. (Previously Presented) The process according to Claim 7, wherein the detection is carried out by a flame ionization detector.

9. (Currently Amended) The process according to Claim 7, wherein the hydrogen is mixed with the gas to be ~~analysed~~ analyzed, so that the hydrogen/oxygen ratio is between 10% and 40%.

10. (Previously Presented) The process according to Claim 7, wherein the temperature of the catalyst is such that less than 5% of the methane present in the gas is incinerated.

11. (Previously Presented) The process according to Claim 10, wherein the temperature of the catalyst is between 160°C and 190°C.

12. (Previously Presented) A process for the detection of hydrocarbons other than methane in a liquid oxygen bath of an evaporator of a unit for the production of gases from the air, comprising:

- a withdrawal of a sample of liquid oxygen from the said bath,
- an evaporation of the said liquid oxygen, producing an evaporated gas,
- a process for the detection of hydrocarbons other than methane in the said evaporated gas, according to Claim 1.

13. (Previously Presented) The process according to Claim 12, wherein the withdrawal of the sample is carried out using a pipe of a pump for raising liquid over a sampler of a lift type.

14. (Previously Presented) The process according to Claim 12, additionally comprising a stage of triggering an alarm when the concentration or the level of hydrocarbons other than methane in the said evaporated gas exceeds a certain limit value.

15. (Currently Amended) A device for the detection of hydrocarbons other than methane in a gas predominantly comprising oxygen, methane and said hydrocarbons other than methane, said device comprising:

- means for the detection of the combined hydrocarbons in the said gas, providing a first value for the combined hydrocarbons,

- means for the combustion of the hydrocarbons other than methane,
- means for the detection of methane, providing a second value,
- means for the calculation of the amount of hydrocarbons other than methane by the difference between the first value and the second value, and
- means for introducing hydrogen into said gas.

16. (Previously Presented) The device according to Claim 15, wherein the means for the combustion of the hydrocarbons other than methane comprises a catalyst.

17. (Previously Presented) The device according to Claim 15, wherein the means for the detection of the combined hydrocarbons and the means for the detection of methane comprises a flame ionization detector.

18. (Currently Amended) A device for the detection of hydrocarbons other than methane in a liquid oxygen bath of an evaporator of a unit for the manufacture of gases from the air, comprising:

- means for the withdrawal of a sample of liquid oxygen from the said bath,
- means for the evaporation of the said liquid oxygen, producing an evaporated gas, and
- means for triggering an alarm when the concentration or the level of hydrocarbons other than methane in said evaporated gas exceeds a certain limit value, and
- a detection device according to Claim 15.

19. (Canceled)

20. (Currently Amended) The process according to Claim [[2]] 1, said gas comprising at least 99% oxygen.

21. (Currently Amended) The process according to Claim [[2]] 1, said gas comprising at least 99.5% oxygen.

22. (Previously Presented) The process according to Claim 4, wherein said hydrocarbons other than methane are present, with respect to the methane, in a proportion of less than 5%.

23. (Previously Presented) The process according to Claim 4, wherein said hydrocarbons other than methane are present, with respect to the methane, in a proportion of less than 4%.

24. (Previously Presented) The process according to Claim 4, wherein said hydrocarbons other than methane are present, with respect to the methane, in a proportion of less than 3%.

25. (Currently Amended) The process according to Claim 8, wherein the hydrogen is mixed with the gas to be analysed analyzed, so that the hydrogen/oxygen ratio is between 10% and 40%.

26. (Previously Presented) The process according to Claim 8, wherein the temperature of the catalyst is such that less than 5% of the methane present in the gas is incinerated.

27. (Previously Presented) A process for the detection of hydrocarbons other than methane in a liquid oxygen bath of an evaporator of a unit for the production of gases from the air, comprising:

- a withdrawal of a sample of liquid oxygen from the said bath,
- an evaporation of the said liquid oxygen, producing an evaporated gas,
- a process for the detection of hydrocarbons other than methane in the said evaporated gas, according to Claim 3.

28. (Previously Presented) A device for the detection of hydrocarbons other than methane in a liquid oxygen bath of an evaporator of a unit for the manufacture of gases from the air, comprising:

- means for the withdrawal of a sample of liquid oxygen from the said bath,
- means for the evaporation of the said liquid oxygen, producing an evaporated gas, and
- a detection device according to Claim 16.

29. (Previously Presented) A device for the detection of hydrocarbons other than methane in a liquid oxygen bath of an evaporator of a unit for the manufacture of gases from the air, comprising:

- means for the withdrawal of a sample of liquid oxygen from the said bath,
- means for the evaporation of the said liquid oxygen, producing an evaporated gas, and
- a detection device according to Claim 17.